

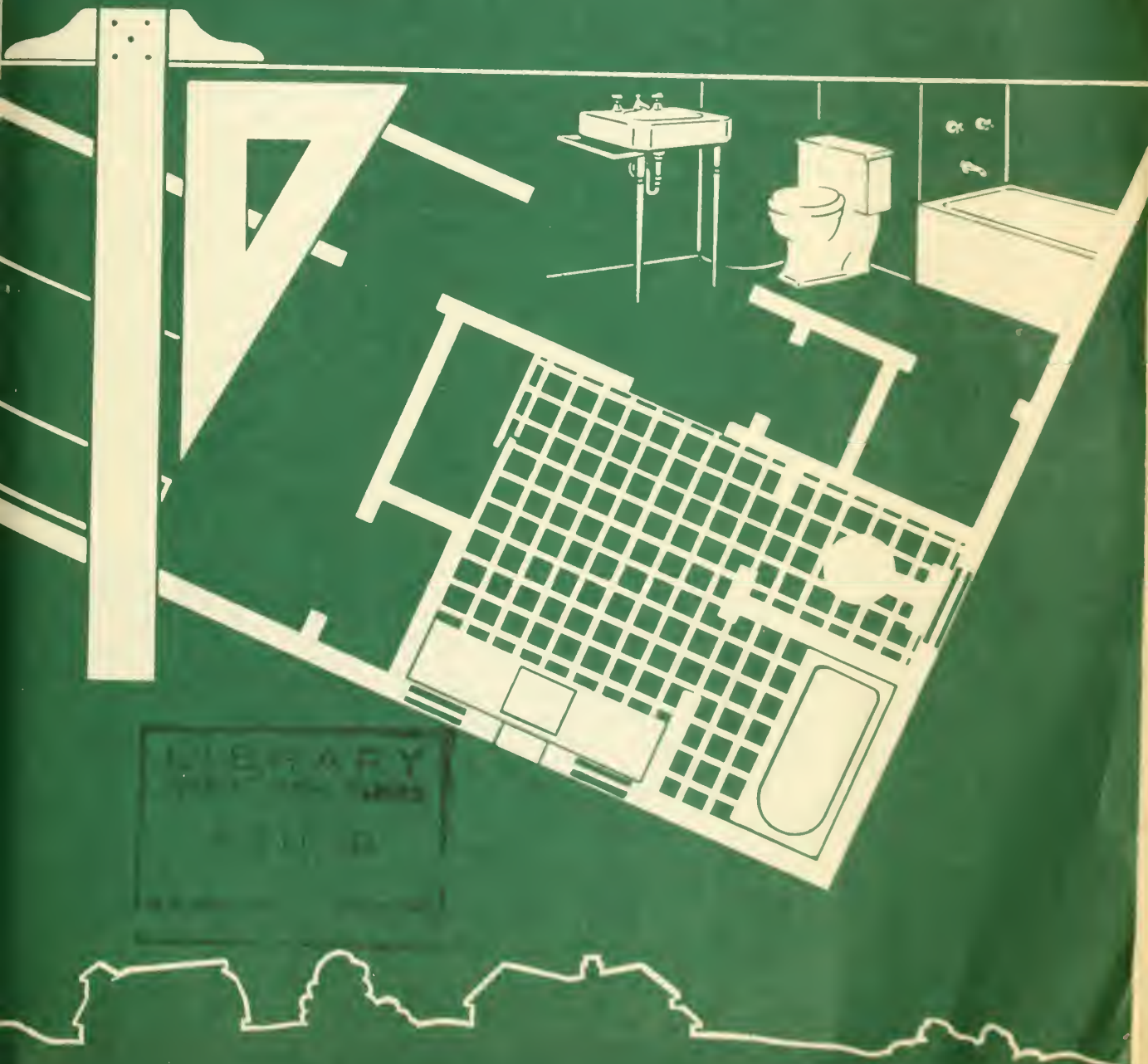
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YOUR FARMHOUSE . . .

# PLANNING THE BATHROOM



# Planning the Bathroom

Subject matter: Mildred Stenswick, Avis Woolrich, J. Robert Dodge

Presentation: Writing, Marguerite Gilstrap; layout and artwork, C. Pauline Harlan, Elinor Uman

Whether you are putting a new bathroom into an old house or building everything new, plan the bathroom to fit your family's present and future needs. Let everyone in the family, young and old, join in the planning. Here are just a few of the many questions you will want to talk over before you make your final plans.

Will Dad and the boys coming in from work use the bathroom as a washroom, or can you build a separate washroom? Can you plan your bathroom to meet the special needs of the children or sick or aged members of the family? Do you need bathroom space to bathe and dress a baby?

Will there be a morning rush on the bathroom? Perhaps you need a bathroom that several persons can use at one time and still have privacy.

Plan these things carefully in advance, for once fixtures are in, they are not easy to move.

## Best Place for Bathroom

Once you've decided on the kind of bathroom you need, the next step is to choose the best place in your house for it. You can save money by locating your bathroom next to or above the kitchen or washroom where there is other plumbing (fig. 4). Also try to locate your bathroom on the side of the house nearest disposal system.

Figure 1 shows where you might place the bathroom in a one-story house—convenient to all rooms and to the back door. Menfolks coming in from work won't have to go through kitchen work areas to get to the bath. Also bathroom fixtures cannot be seen from the living room when the bathroom door is open.

There is only one door—that is all you need. A bathroom with two doors will not be as private. And often someone forgets to unlock both doors. It is better to have the door open from a hall than from another room. Then anyone can enter the bathroom without disturbing persons in the other rooms. A hall also protects the rest of the house from bathroom odors and noises.

In this bathroom a window furnishes light and air. A bathroom with four inside walls is never as satisfactory as a room with at least one window. If there is no window, you must provide an exhaust fan or other type of ventilator.

Figure 2 shows a good location for a bathroom on the first floor of a two-story farmhouse. Here at the foot of the stairs, the bathroom can also serve as a washroom. But if you can have a separate washroom on the first floor it is better to place the main bathroom at the head of the stairs nearer the bedrooms (fig. 3).



Figure 1.—Good location for bathroom in one-story house.

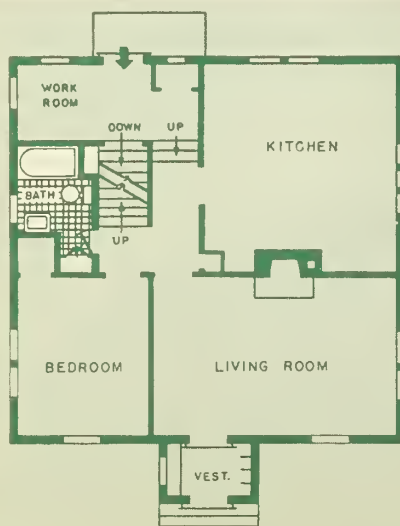


Figure 2.—Well-located first-floor bathroom in two-story house.

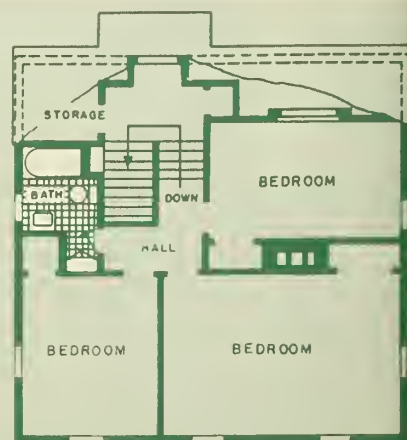


Figure 3.—Good location for upstairs bathroom.



## Behind the Scenes

Plan the plumbing so pipes can be put into walls and under the floor where they are hidden from sight. If vertical pipes cannot be placed in the walls, box them in.

If you live in a cold climate, place the pipes in inside walls where possible. Even in mild climates—where temperatures occasionally reach freezing—pipes in outside walls need insulation. Either pipe insulation or loose insulation can be used. Ask your dealer to recommend the desirable thickness of pipe insulation. If you use loose insulation place the pipes close to the inside of the stud space so there is as much insulation between the pipes and outside wall as possible.

Plumbing fixtures are heavy. If you are building a new house, make sure the floor joists are large enough to hold the fixtures. In an old house, have an experienced builder check the floors. They may need more or larger joists. The plumber may have to cut notches in the joists for pipes. Such joists may need reinforcing to provide necessary strength.

If you are selecting a wall-hung lavatory (wash-bowl) make sure the wall is strong enough to support it without sagging.

Place the fixture end of a recessed or built-in bathtub on an inside wall. You can then have a removable panel in the wall (shown by dotted lines in figs. 29 to 34) so you can easily repair pipes.

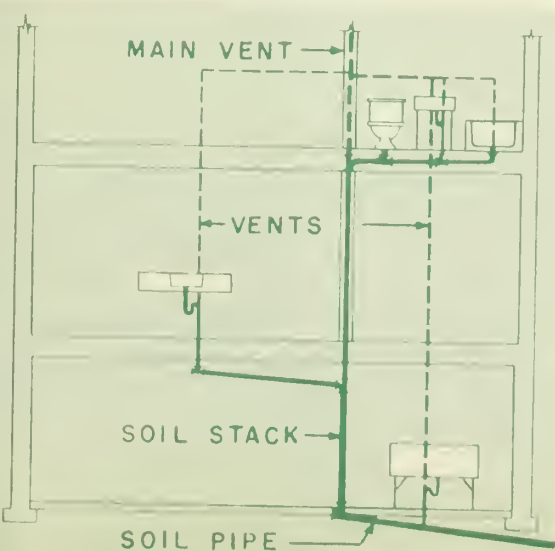


Figure 4.—Diagram of economical waste and vent piping.

**Waste pipes.** A 3- or 4-inch vertical soil stack carries wastes away from the bathroom (fig. 4). In planning the plumbing, keep in mind that 6-inch rather than 4-inch studs are needed in the wall where the soil stack goes.

The lavatory connects with the soil stack by 1½-inch waste pipe and the tub by 1½-inch pipe. But the waste pipe connecting the water closet to the soil stack is the same size or only slightly smaller than the soil stack. To save on the cost of piping, place the water closet as near the soil stack as possible. Figure 5 shows how the size of the floor joists limits the distance the water closet can be from the soil stack.

Locate the water closet so the large waste pipe goes between and parallel to the floor joists rather than cutting through them. This saves cutting the joists and may save costly floor framing.

You can also save on the cost of piping by placing all the fixtures along one wall.

**Traps and vent pipe.** To keep sewer gas from leaking into the room, each fixture must have a trap and connect to a vent pipe. Plan to locate your fixtures so they can all be vented through a single main vent extending through the roof. This main vent is an extension of the soil stack.

The trap to the water closet is built right into the bowl. Traps to lavatory and bathtub go in the waste pipes of these fixtures.

Farmers' Bulletin No. 1426, Farm Plumbing, tells kind of pipes to use, and how to install plumbing.

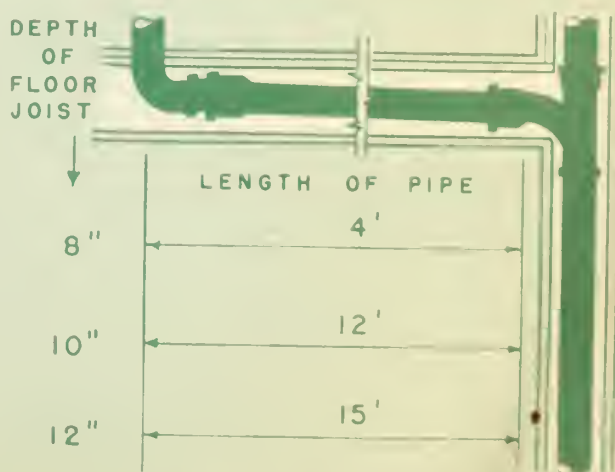


Figure 5.—Joist depth needed for different length of waste pipe sloping ¼ inch per foot.

# Facts on Fixtures

The kind of fixtures you buy will depend on how much you have to spend, and on how large a room you are planning. Cost of fixtures varies with size, style, fittings, and materials used. Average size fixtures are usually satisfactory. The smallest size may be inconvenient; the largest, especially the tub, may take too much water.

Fixtures may be made of vitreous china, enameled iron, or enameled steel. Vitreous china fixtures, the most expensive type, do not stain easily and are very resistant to both acids and alkalis. Water-closet bowls are all made of this material, and it is especially desirable for lavatories that receive much use. Enameled iron or enameled steel fixtures may have an acid-resisting finish. Enameled steel fixtures are cheaper than enameled iron.

You will want to consider whether fixtures are easy to clean and keep in working order, and safe to use. A water closet with a one-piece tank and bowl, for instance, is easier to clean and neater than the two-piece type with exposed pipes. Seats of plastic or plastic finish wear longer than those of painted wood.

With faucets that mix hot and cold water you can regulate the temperature. Metal and most plastic faucet handles are less likely to break than porcelain ones.

Think about safety when you buy a bathtub. There is less danger of slipping in a flat-bottomed tub.

The following pages point out some of the differences between the various kinds of fixtures.

## BATH TUBS

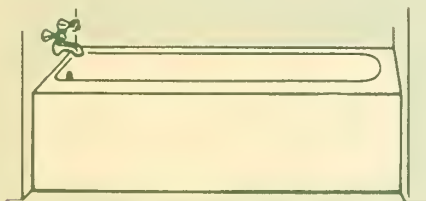


Figure 6.—Built-in tub.

Built-in tub without wide rim is 30 inches in width, with wide rim 36 inches; and  $4\frac{1}{2}$ , 5 (most common length),  $5\frac{1}{2}$  or 6 feet long. Fits into less space than tub on legs. No exposed pipes.

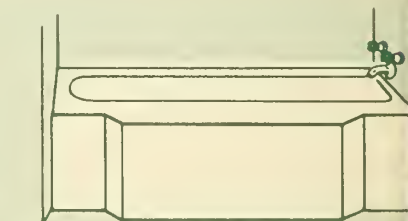


Figure 7.—Built-in tub, wide rim.



Figure 8.—Corner tub,

Built-in corner tub may be  $4\frac{1}{2}$ , 5 (most common length), or  $5\frac{1}{2}$  feet long and 30 inches wide.

If there is no outside apron, enclose built-in tub with tile, linoleum, or other water-resistant material.

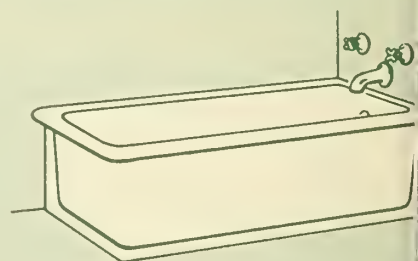


Figure 9.—Corner tub, no apron.



Figure 10.—Tub with legs.

Tub with legs may be 26 or 30 inches wide and 5 feet long. Costs less than other models. May be difficult to step into because of height from floor. Tub is hard to clean around—both underneath tub and around pipes.

Square built-in tub may be 42 by 31 inches, 46 by 48, 48 by 49, or 48 by 51 inches. Back of tub is hard to reach for cleaning.

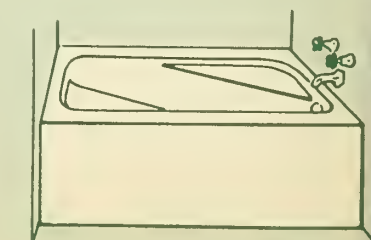


Figure 11.—Square built-in tub.

## LAVATORIES

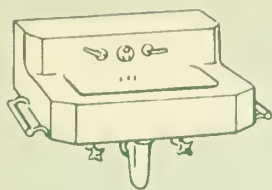


Figure 12.—Wall-hung lavatory with shelf back is easy to clean, moderate in cost.

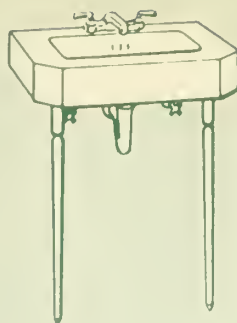


Figure 13.—Lavatory on legs looks modern, but legs add to cost and work of cleaning.

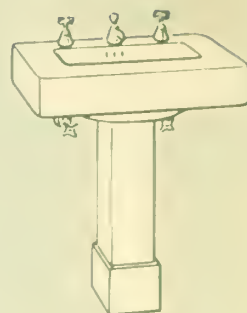


Figure 14.—Lavatory on pedestal is more expensive, has more surface to clean.

### STANDARD SIZES OF THE ABOVE LAVATORIES

#### Small sizes

| Length along wall | Front to back |
|-------------------|---------------|
| 18 inches         | 15 inches     |
| 19 inches         | 17 inches     |
| 20 inches         | 14 inches     |

#### Average sizes

| Length along wall | Front to back        |
|-------------------|----------------------|
| 20 or 21 inches   | 18 inches            |
| 22 inches         | 18 or 19 inches      |
| 24 inches         | 18, 20, or 22 inches |

#### Large sizes

| Length along wall | Front to back   |
|-------------------|-----------------|
| 26 inches         | 20 or 22 inches |
| 27 inches         | 21 or 22 inches |
| 30 inches         | 20 inches       |

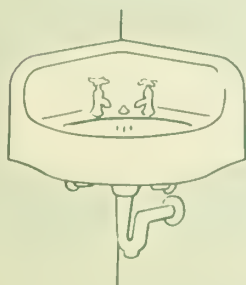


Figure 15.—Wall-hung lavatory to fit into corner. Standard sizes: 16 or 17 inches on each side. For use under special conditions, such as when space is limited.



Figure 16.—Lavatory on cabinet base. Provides storage space; is good choice for a small room. Standard sizes: 24 by 18 inches, 24 by 20 inches.



Figure 17.—Flat-rim basin, can be built into counter covered with water-resistant material. Cabinet can be built any length desired. Gives good storage space, handy surface on which to lay articles used at lavatory. Standard sizes: Oval basin, 17 by 14 inches; 19 by 15 inches. Oblong basin, 18 by 12 or 14 inches.

### RIGHT HEIGHT FOR THE LAVATORY

Regardless of the type of lavatory you choose, it is important to have it at a height that is right for most members of your family. You can place a wall-hung lavatory at whatever height is best. A lavatory with fixed legs or on a pedestal is usually 31 inches high. Lavatories with adjustable legs can be set at

any height up to 36 inches, which is a more comfortable height for the average person. You can adjust the height of a ready-made cabinet under the lavatory by building up the toe space.

For the small children, plan to provide a movable step stool.



## SHOWERS

You may want to include a shower in your bathroom. A stall shower (fig. 18) is usually cheaper than a tub. However, if you already have a tub you can add a

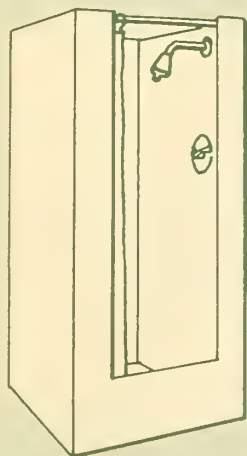


Figure 18.—Ready-built shower stall. Standard sizes: 30 by 30 inches, 32 by 32, 36 by 36, 30 by 32, 32 by 36 inches. Height: 6 or 7 feet.

Make sure water-tight construction is used in base of shower. Use floor in shower that will not get slippery when wet. (See p. 7.)

shower head. Mount high enough to suit the tallest member of your family. If the head is on a ball joint, the direction of the spray can be adjusted.



Figure 19.—Rainhead shower has wide face plate. Gives best distribution of water.



Figure 20.—Circular spray has holes around outer edge of plate only, so takes less water than rainhead shower.



Figure 21.—Economy shower head has fine spray, small water spread. It uses least water of any shower head but is often objectionable because of small flow of water.

## WATER CLOSETS

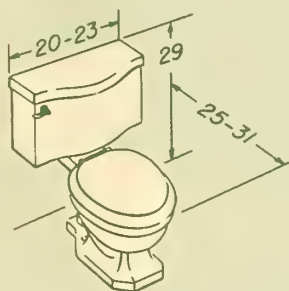


Figure 22.—Water-closet dimensions.

| Type          | Size                            | Good and Bad Points  |
|---------------|---------------------------------|--|
| Wash-down.    | Front to back, 25 to 30 inches. | Simple. Least costly. Noisy to flush.  |
| Reverse trap. | Front to back, 27 to 31 inches. | Costs a little more and is more quiet than wash-down type.                         |
| Siphon jet.   | Front to back, 27 to 31 inches. | Most expensive type. Quiet operation. Large trapway keeps it from clogging easily. |

## Wall Finishes, Floor Coverings

There are many good wall finishes and floor coverings to choose from. Consider carefully the cost, ease of installation, how long the material will wear, and whether it is easy to take care of.

Cost of the materials may vary from one part of the country to another. Check with the catalogs and your local dealers to find the finishes that suit your taste and pocketbook. Some finishes will last the lifetime of the house; others will have to be replaced. Decide which you want.

Some materials you can install yourself, but be sure to follow the manufacturer's directions exactly. Others should be installed by a person skilled in handling them. Local dealers often have factory-trained workmen to install floor and

wall coverings. The quoted prices of floor and wall coverings often include installation.

For any floor or wall covering, good care is important in how long it will wear. Protect all floors from grease and excess water. Use scouring powder only on unglazed tile. Use varnish, shellac, penetrating seal, and lacquer only on wood.

To clean floors, wash with mild soapsuds, rinse, and dry. Use type of finish the manufacturer recommends. Wax (nonskid), often recommended, protects the floors and makes them easier to clean.

For all walls, washing with water and mild soap, and polishing is about all the care they need.

The following tables list the wall finishes and floor coverings suitable for the bathroom.



## Wall Finishes

| <i>What to buy</i>                     | <i>Points to consider</i>   | <i>How it is put on</i>  |
|--|---|--|
| Waterproof paint and enamel            | Many colors. Easy to put on.  | Applied to wood, wallboard, or plaster.  |
| Washable wallpaper                     | Easy to put on. Not costly. Goy, colorful patterns.                   | Posted over smooth walls. Use a more water-resistent material around shower.     |
| Oilcloth and other coated fabrics      | Easy to put on. Costs little more than wallpaper and is more durable. | Posted over smooth walls. Cover seams in shower with metal or plastic strips.    |
| Wallboard, waterproof finish           | Easy to put on. Baked-on enamel finish more durable than paint.       | Nailed or cemented in place. Cover seams in shower with metal or plastic strips. |
| Wall linoleum; enameled wall coverings | Water-resistant. Smooth, colorful, modern. Do not use in shower.      | Cemented on smooth walls with waterproof cement.                                 |
| Glazed or unglazed ceramic tile        | Waterproof. Many colors and patterns. Long lasting.                   | Set in cement mortar on metal lath. Requires skill to install.                   |
| Glass brick and plastics               | Waterproof. Many colors in plastics.                                  | Set in mortar. Requires skill to install.  |
| Enameled steel                         | Waterproof. Durable baked-on enamel finish.                           | Applied over special base. Requires skill to install.                            |

## Floor Coverings

|                                       |   |   |
|---------------------------------------|---|---|
| Linoleum—light, medium, or heavy gage | Not tiring to stond on. Water-resistent finish. Many colors and patterns. With core will lost 15 to 20 years. Do not use on concrete floor loid on ground.      | Cemented over felt base on floor. Requires skill to install. Follow manufacturer's directions exoctly.                      |
| Enameled or printed floor coverings   | Water-resistant finish. Inexpensive. Surfoce pattern wears off. Do not use on concrete floor laid on ground.  | Some os linoleum.   |
| Asphalt tile                          | Water-resistant. Colorful. Not tiring to stond on. Quiet. Long weoring. Can be used on concrete floor laid on ground.   | Cemented over felt base, on smooth floor. Requires skill to install. Follow manufacturer's directions.                      |
| Rubber tile                           | Similar to osphalt tile, but slippery when wet. Do not use on concrete floor loid on ground.  | Same as asphalt tile.   |
| Cork tile                             | Water-resistent. Worm and easy to stond on. Does not stoin easily. Quiet. Long lasting. Expensive.  | Cemented over smooth floor. Requires skill to install. Follow monufacturer's directions exactly.                            |
| Unglazed ceramic or clay tile         | Waterproof. Many sizes, shopes, colors. Lasts lifetime of house. Hord and cold to stond on. Expensive, heavy; may need additional joists to support it. Stoins. | Set in cement mortar, usully on re-inforced concrete. Requires skill to instoll. Follow monufacturer's direc-tions exoctly. |
| Concrete                              | Waterproof. Durable. Hord and cold to stond on. Heovy and moy require odditional joists. May be hord to clean.  | Placed after pipes ore installed. Use o steel trowel for o smooth finish.   |
| Wood—yellow pine, fir, oak            | With right care, gives good service. Is opt to swell, rot, and stoin if water stonds on it. Frequent refinishing is necessary.                                  | Loy tongue-and-groove flooring tight. Finish with water-resistant varnish or point.   |

# Storage and Accessories

## Cabinets Over Lavatory

Plan cabinets over the lavatory for storing tooth paste, shaving lotion, and other toilet articles. Or if you prefer, have fixed mirrors over the lavatory with cabinets on each side. For medicines, you'll need a cabinet that can be locked and that is out of the children's reach.

Usual height for cabinets over the lavatory is 62 inches from floor to center of cabinet. However, you may find that some other height is more convenient for your family.

Ready-made cabinets are of the wall-hung or recessed types. They come in varying sizes. The recessed cabinet most commonly used is 14 inches wide because it fits between the studs. If you want a wider cabinet the studs will have to be cut and a simple box framing made.

It is easy to keep jars and bottles in order and within reach if you have plenty of shelf space. To figure how much shelf space you will need over the lavatory, line up the bottles and jars and tubes you will keep there. Measure the line, then divide by the number of shelves you plan to have. This will give you just about the width of the cabinet you need. You won't want a cabinet less than 14 inches wide, however, for next year you may have more articles to store there.

To make the best use of the space in the cabinets, plan shelves that are adjustable. This allows for flexibility in spacing of shelves to meet your own special needs.

Glass makes good shelving for the cabinets because it cleans easily. If you have wood shelves, cover them with linoleum or paint to protect them from dampness and toilet preparations.

Figure 23 illustrates how you might arrange three cabinets over the lavatory. The mirrors on the doors make a three-way mirror when you open the side cabinets.

The low-set cabinet for the children's use (fig. 23) is generally placed so the center is from 30 to 36 inches from the floor. Installed low enough, this cabinet gives the children a place to keep their own toilet articles. Later, when the children outgrow the cabinet, you can use it to store shoe polish and brushes or other supplies.

## Towel Cabinets

Plan for storage of towels in your bathroom unless you live in a humid area. Even in a small room, you can set a towel cabinet in the wall over the closet tank if the soil stack or vent pipe is not in the way. If the wall has 6-inch studs, the cabinet can set back in the wall 5 inches, and stand out from the wall even with the front of the tank. Build the cabinet to the ceiling for extra storage space. Place the cabinet at least 12 inches above the tank or install a removable bottom shelf in the cabinet so you can make repairs in the tank.

Towels can be kept in a cabinet under the lavatory (fig. 17) if there is no other place and if moisture does not condense on the pipes. You can build this type of cabinet or buy one ready-made. The cabinet shown in figure 24 has a lower drawer with a hinged cover. This makes a handy step-up for children. Notice how the board which forms the back of the toe space makes a sturdy support for the drawer.

A floor-to-ceiling cabinet provides room for many bathroom supplies. The one shown (fig. 25) is 18 inches deep, has shelves and drawers for towels and supplies, a pull-out shelf for sorting linens, and a clothes chute beneath.

If you have ample space, plan shelves at least 18 inches deep. Make them adjustable in height to get the best use from your storage space.

Put shellac, varnish, enamel, or wax on shelves, trays, drawers. The finish makes them easy to clean, and also protects them from bathroom dampness.

## Utility Cabinets

Plan to store cleaning supplies in the bathroom. A cabinet under the lavatory may be used for this (fig. 16). Figure 26 shows a utility cabinet set between the studs in the wall at the end of the tub. It can be  $3\frac{3}{4}$  or 5 inches deep, depending on the size of the studs. The slots at the top and bottom are for ventilation. Besides the cleaning supplies, there is room in the cabinet for articles such as hot-water bottles. Do not plan for this cabinet if there is to be a shower at the other end of the tub.

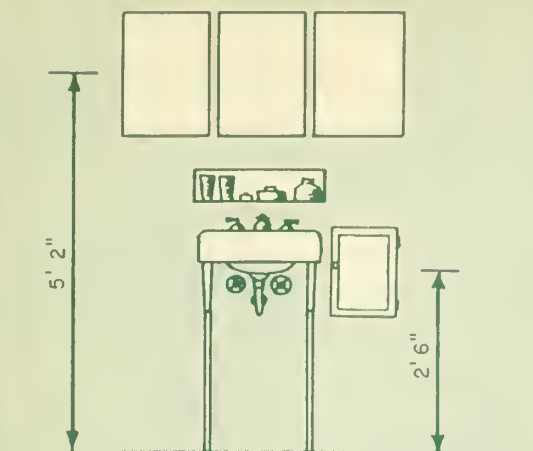


Figure 23.—Three cabinets with mirrors over lavatory. Low-set cabinet with mirror for children's use.



Figure 24.—Cabinet under lavatory. Hinged cover on low drawer makes step-up for children.



Figure 25.—Floor-to-ceiling cabinet for bathroom supplies.

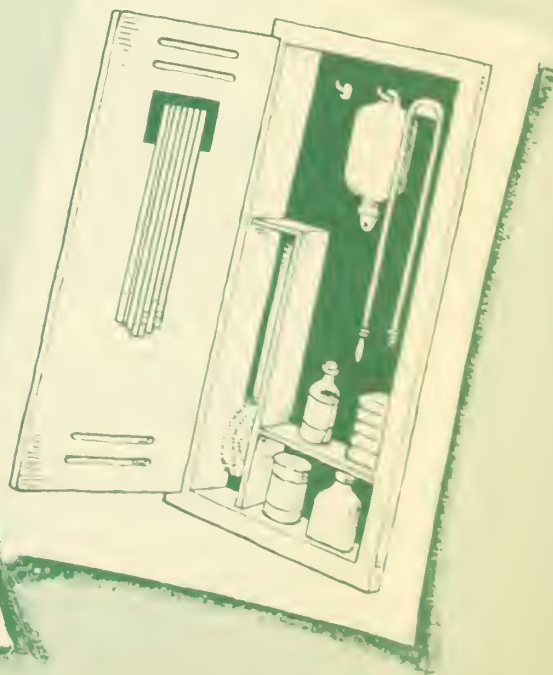


Figure 26.—Utility cabinet for cleaning supplies, hot-water bottle, and other bathroom supplies.



## Small Accessories

**Towel rods.** Plan enough rods so there is towel space for each member of the family, and an extra rod for guest towels. If possible, allow about 21 inches of rod space for each person.

Place children's towel rods low enough for them to reach. There are inexpensive rods which fasten to the side of a lavatory. This height is convenient for the children.

Are you short on wall space? Install rods on the door. Or if there is no shower, you can place towel rods above the tub.

**Soap dishes.** You'll need a soap dish at the tub and one at the lavatory. Be sure the soap dishes drain well and hold even small pieces of soap.

In some bathroom fixtures the soap dish comes already built in. There are others on the market in metal and tile that set in the wall.

**Tooth-brush holders.** Plan a place near the lavatory to keep tooth brushes. The cabinet above the lavatory is a good place if it is ventilated.

**Paper holder.** Set the center of the toilet-paper holder about 23 inches from the floor, within easy reach. If it goes on the side wall, place holder even with the front of the water closet.

Holders come in two types. One type is fastened on the wall; the other is set in the wall.

**Grab bars.** Grab bars installed by the bathtub and shower help protect your family from falls. Make sure they are firmly anchored and will hold securely.

Figure 28 shows two grab bars used together for a tub and shower combination. A long vertical bar for support at the shower is placed about 18 inches from the shower end of the tub. The center of a horizontal bar is placed about one-third of the length of the tub from the faucets.

You can get a horizontal grab bar combined with a soap dish that is set in the wall. This comes in metal or in tile.

**Clothes hooks.** A nonrusting hook on the door or wall is needed for hanging bathrobes and other clothing. For safety, place hooks above or below eye level.

**Razor-strop hook.** If the men of the family use a straight-edge razor, place a hook for the strop near the lavatory. A good height for the hook is about 4 feet from the floor.

**Razor-blade slot.** Some ready-built cabinets over the lavatory have an opening in the bottom or back so that used razor blades can be dropped between the studs. If you are building your cabinet make the slot  $\frac{1}{4}$  by  $1\frac{1}{2}$  inches for this.

## Clothes Driers

If it is necessary to hang wet clothes in the bathroom, the best place is over the tub where the water can drip and drain away. Here are suggestions for several driers that are handy to use and always ready:

- Hooks fastened on the wall at each end of set-in tub hold lines stretching over the tub (see fig. 27).
- A line on a reel at the end of the tub.
- A folding rack installed inside the cabinet door at the end of the tub.
- A swinging arm rack in a cabinet.
- A ladder drier at the end of a built-in corner bathtub (see fig. 28).

Notice how the rods are spaced to allow wet clothes to hang free. The flat piece at the bottom of the drier slants so the dripping water runs into the tub.

Plastic, wood, or metal make good rods for the drier. If you use wood, sandpaper it smooth. Then paint it with waterproof finish so it is easy to clean and will not mildew.

## Baby's Bath

To take care of a baby in the family, you might want to plan space in the bathroom to bathe and dress him and keep his toilet supplies.

Figure 29 shows a bathroom plan with a built-in cabinet to hold baby clothes and supplies. This plan also has room for a bath table next to the cabinet.

The base cabinet shown is 30 inches high and large enough on top to hold baby's bathtub. A bath table placed to the right of the cabinet is convenient for a right-handed person. There is space under the table for the baby's bathtub and a diaper pail.

Overhead cabinets, set in the wall, hold baby's bath supplies. For safety and convenience, leave the doors off the cabinet or use sliding doors. There is less danger of the baby's head being bumped.



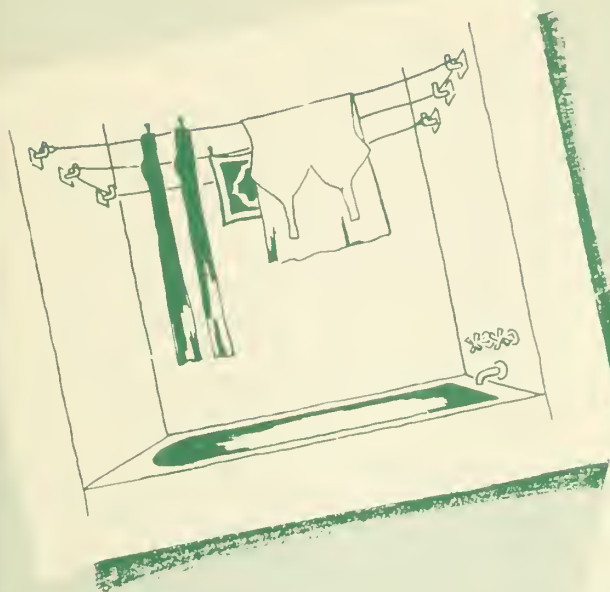


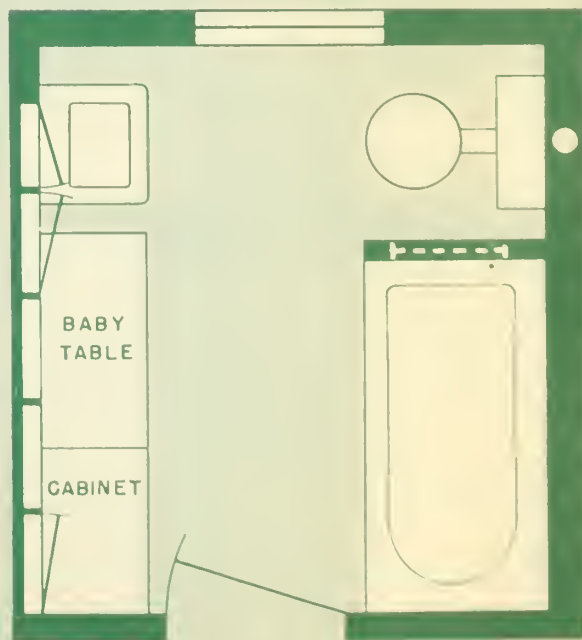
Figure 27.—Hooks in wall hold drying lines over bathtub.



Figure 28.—Ladder drier.



Figure 29.—Bathroom with space to bathe and dress the baby. Base cabinet and overhead cabinets hold baby's clothing and toilet supplies.



# Bathroom Plans

## Small Bathroom

The smallest bathroom you can build and use an average size tub is 5 feet square (fig. 30). The lavatory in this room can extend from the wall only 15 inches, the water closet only 27 inches. This provides the minimum space needed between front of lavatory and water closet, but not enough in front of the tub for easy cleaning.

In a room as small as this, there is space for storage cabinets under the lavatory and in the studs of the wall above the water closet and lavatory. With steam or hot-water heat, you will need to use a guarded wall-hung radiator.

The door opens out of the room and the window is over the tub. This is not a good or a safe place for a window, but sometimes it is the only possible location. Over a tub, casement windows with cranks are easier to open than double-hung windows.

This is strictly a one-person bathroom. If there are children or others who need help in the bathroom, plan a bigger room.

By making the bathroom slightly larger, 5 by  $6\frac{1}{2}$  feet, the door can open into the room (fig. 31).

Figure 32 shows another bathroom 5 by  $6\frac{1}{2}$  feet. With a shower stall instead of the tub, there is space along the 5-foot wall for a built-in lavatory with counters and storage cabinets underneath. Two casement windows over the counters allow plenty of daylight at the mirror.

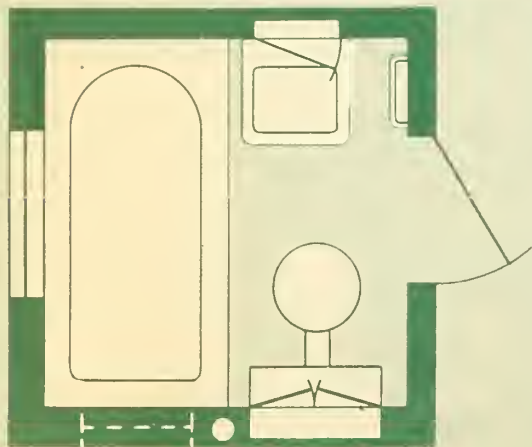


Figure 30.—Bathroom 5 feet square is smallest room that will take an average size tub.

## Large Bathroom

Figure 33 shows how you might arrange a bathroom that is 5 by 8 feet. Here the door is centered in the long wall. To allow the door to open, the lavatory cannot extend more than 18 inches from the wall. The tub fits into one end of the room.

Behind the door there is space for a floor-to-ceiling cabinet 12 inches deep and 24 inches wide. Next to the lavatory is room for a movable storage cabinet or a built-in counter. Either of these can be made at home.

If your bathroom can be as large as 7 by 8 feet, you can arrange the fixtures in a number of ways. Also the extra floor space makes it possible to use the bathroom as a dressing room. In figure 34, all fixtures are placed along the 7-foot wall across from the door, an economical arrangement.

In a room this size, there is space for a baby bath table to the right of the door. If the table is on casters, it can be wheeled to the lavatory at bath time. To the left of the door is a floor-to-ceiling cabinet for towels and bath supplies (see also fig. 25). The tub has been recessed by building a wall between tub and cabinet.

Figure 29 also shows a plan for a large bathroom. If you don't need the baby bath table, you can build the lavatory into a continuous counter along the wall, or use the space for floor-to-ceiling cabinets.

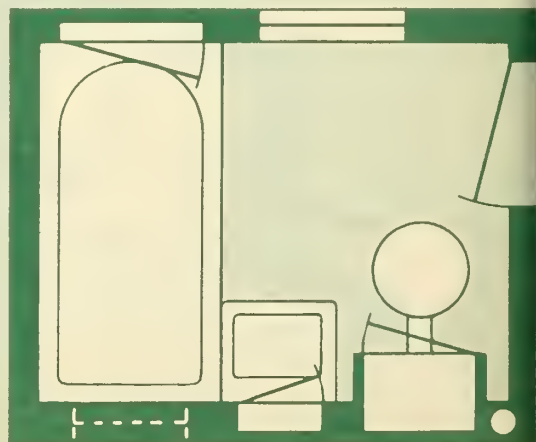


Figure 31.—Bathroom, 5 by  $6\frac{1}{2}$  feet, has space for door to open into room.

## Heating and Lighting

Let warmth and safety be your guides in planning heat for your bathroom. Remember to plan a place for your radiator, heater, or register. If you have steam or hot-water heat, you can save space by using a radiator recessed under the window.

If you use an electric heater, get a wall panel or built-in heater. Avoid using portable heaters. Place heater where towels, curtains, or clothing will not catch fire from it, and make sure it is shielded so there is no danger of anyone getting burned. Electric heaters must be properly grounded for safety. Gas heaters should be vented.

In the large bathroom you'll need an overhead light as well as light at the mirror. For a small room a light over the mirror or brackets at the sides will be enough. For side brackets, about  $5\frac{1}{2}$  feet from floor to center of bulb is the right height. Place fixtures so the light shines on both sides of the face instead of in the mirror.

For safety use wall switches rather than pull chains. In the bathroom it is usually possible to touch both water and metal while using electric equipment or switching on lights. There is great danger of shock if wiring or cord is defective, or equipment is not properly grounded. So, try to locate switches and convenience outlets out of reach of anyone in the tub and away from pipes or other metal objects.

Farmers' Bulletin No. 1838, Electric Light for the Farmstead, and Miscellaneous Publication No. 597, Planning Your Farmstead Wiring and Lighting, tell in more detail how to plan your lighting.

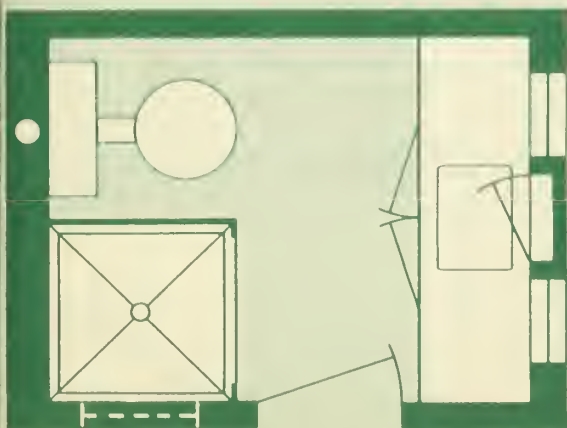


Figure 32.—With shower only, 5- by  $6\frac{1}{2}$ -foot bath has space for lavatory with counters.

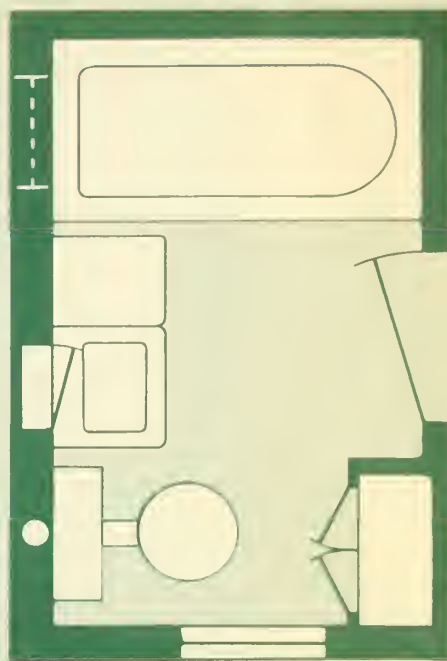


Figure 33.—Bathroom 5 by 8 feet has fixtures along one wall—an economical arrangement. There is space for a floor-to-ceiling cabinet and a movable cabinet next to lavatory.

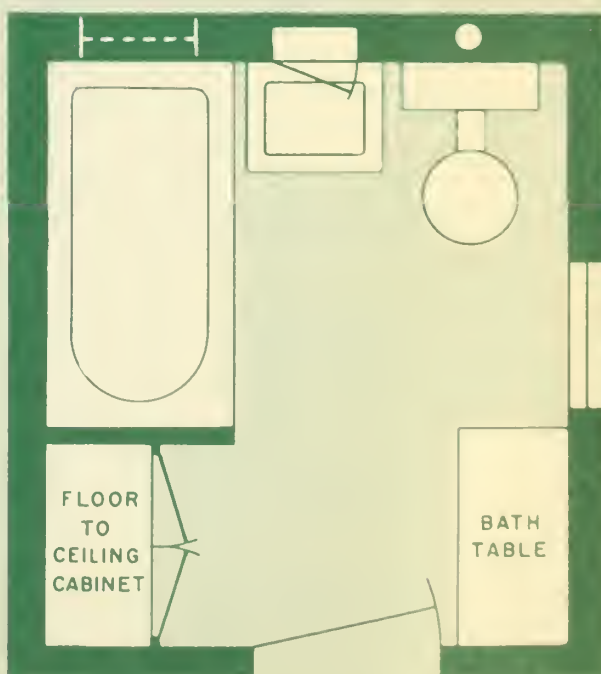


Figure 34.—Bathroom 7 by 8 feet has plenty of space for dressing and for baby bath table.



## Washroom

The handiest place for the washroom is near the back door or in the basement where the men can reach it without going through the kitchen or living parts of the house.

Besides the water closet and lavatory, the washroom may have a shower and closets to keep clean clothes and clothes in use. If possible, plan a window or outside vent to provide circulation of air in the closet for work clothes.

Figure 35 shows a plan for a complete washroom. It is 13 by 10½ feet, and is large enough for several men to clean up in at the same time.

The pan-type wash sink is fitted with two double faucets. Two set-in cabinets above the sink hold shaving soap, brushes, razors, and tooth brushes. The shelves below the sink hold other supplies.

The shower may be just a shower head with a curtain and a drain, or the cabinet type of shower.

There is a closet for clean clothes and one for clothes in use. Built-in drawers hold underwear, socks, and towels. Above the bench are a mirror and shelf.

## Large Room Into Bathroom

If you plan to turn a room in your present house into a bathroom, plan just as carefully and completely as you would when building new. Bring the family together and decide the kind of bathroom that best meets your needs. Follow the same rules in deciding which room to use for the bathroom that you would follow if you were planning the location in a new house. If the room is larger than you need for a bathroom, plan to make good use of the extra space.

Figure 36 shows how a farm family turned a large corner bedroom, 12 feet square, into a bathroom. They wanted a bathroom in which at least two people could dress at the same time and still have some privacy.

The room they chose had an excellent location. It was at the head of the stairs and opened onto a central hall.

They planned the remodeling so as to leave the windows as they were—this saved some money. They used one side of the room for closets. By partitioning off a space 9 feet long by 3 feet wide, they had room for three closets. Two open into the adjoining bedroom, the third into the hall.

There is space at the end of the partition for the water closet.

Another partition—6 feet long and 8 inches deep—extends into the center of the room to form a wall of storage sections, and to separate the bathtub from the lavatory.

In this dividing wall there is a cabinet above the tub for bath supplies. On the other side of the partition is the lavatory built into a counter.

Notice the cabinets above the lavatory. The four high ones above the mirror hold such staple supplies as toilet paper and soap flakes. The four other cabinets hold toilet articles. Cleaning supplies are kept in the cabinet under the lavatory.

Under the window seat are two built-in clothes hampers. They have vents so air can circulate through them. One hamper is lined with smooth material so it can be used for hose and lingerie.

In the floor-to-ceiling cabinet near the door, the lower shelves are used for shoe polish and brushes. The upper shelves hold towels.

The wall along the closets provides towel rod space. There is also room for a towel rack next to the tub. If needed, other rods can be placed at the end of the floor-to-ceiling cabinet (next to the hampers) and on the wall by the door.

By using a curtain or a door to divide the bathing and toilet part of this bathroom from the dressing area, two people can use the room at the same time and have privacy.

Figure 37 shows another way to divide the room so three people can use it at the same time. In this arrangement, one of the large windows was taken out and two small ones added to give light to the different parts of the room.

In this plan, the toilet and tub are partitioned off in separate sections so that each may be used in complete privacy. The lavatory is built into a counter and placed in the dressing room. Notice, however, that the fixtures are arranged so that plumbing pipes are all in one part of the room.

The cabinets above and below the lavatory provide storage space for soap and other bathroom supplies. This plan also provides plenty of closet space—two built-in wardrobes, a linen closet, and a section with drawers and trays for folded garments.



Lavatory with built-in cabinets.

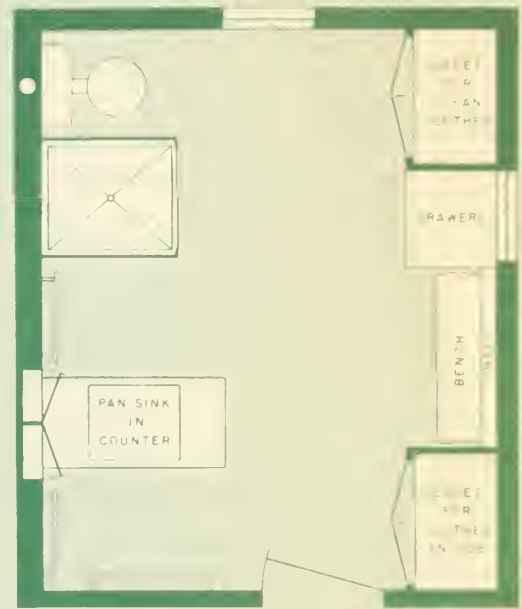


Figure 35.—Washroom with shower, lavatory, and water closet. Closets are provided for clean clothes and clothes in use, drawers for clean underwear and towels.



Figure 36.—Corner bedroom, 12 feet square, makes a large bathroom with bathing and toilet area separated from dressing area so two persons can use the room at the same time and have privacy.

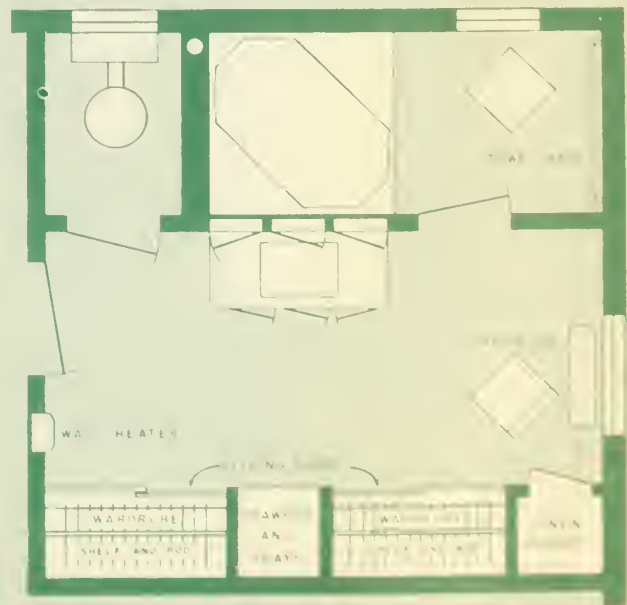


Figure 37.—Another arrangement of the room as figure 36 has tub, water closet, and lavatory partitioned off in separate sections so that each may be used in complete privacy.

# Put your Plan on Paper

There are two ways to put your bathroom plans on paper.

One is to make cut-outs of brown paper or newspaper exactly the size of the fixtures you plan to use. Then arrange the cut-outs on the floor of the room you plan to use for a bathroom.

Another way is to draw a floor plan to scale. Let  $\frac{1}{2}$  inch equal 1 foot. Make cut-outs of fixtures drawn to the same scale. Draw lines to show the location of windows and doors. Then arrange the cut-outs on the floor plan.

See pages 4 to 6 for different sizes of fixtures.

Leave enough space between fixtures to move around them and to clean them easily.

*In front of the fixtures allow at least:*

1½ feet between the front of the lavatory and the front of the water closet.

2 feet between the front of any fixture and the wall across from it.

Minimum floor area needed for a person cleaning the tub—30 inches (along the side of the tub) by 20 inches.

*At the side of the fixtures allow at least:*

2 inches between closet tank and lavatory.

3 inches between closet tank and tub.

4 inches between closet tank and wall at the side of it.

6 inches between lavatory and wall.

Allow more than the minimum of space if you can. Leave room for storage cabinets and towel rods. Rearrange cut-outs of the fixtures until you have them the way you think is best.

When you have finished, use the following questions to check your plan. Rearrange your plan until you can answer "yes" to each question.

## Check Your Plans With This List

*Have you planned your bathroom so that—*

There is at least the suggested minimum space between fixtures and in front of them?

The fixtures will not keep the door from opening full width?

There is enough towel rod space for your family needs?

There is storage space for all supplies you want to keep in the bathroom?

*Have you planned for safety in your bathroom in that—*

The floors do not get slippery when wet.

The bathtub has a flat bottom?

There are grab bars at tub and shower?

There is a mixer faucet combining hot and cold water at the lavatory and a mixer valve at the shower?

The lights are controlled by wall switches and are out of reach of anyone in the bathtub or anyone using a water faucet?

The heater is shielded and placed so there is no danger of fire or burns?

An electric heater is properly grounded?

The cabinet provided for medicines is out of the children's reach and can be locked?

*Have you provided for light, air, and heat so that—*

The room can be heated quickly?

There is a window or a ventilator in the room?

Light shines on face of person using mirror?

*Prepared by*

Bureau of Human Nutrition and Home Economics  
and

Bureau of Plant Industry, Soils, and Agricultural Engineering  
Agricultural Research Administration, U. S. Department of Agriculture  
Washington, D. C.

March 1948



